Welcome to the Third Software Product Line Conference – SPLC 2004

Software product lines have emerged as an important new paradigm for software development. Product line engineering enables the coordinated production of whole families of related systems using the same underlying base of development assets. Organizations large and small and in all domains and sectors are achieving remarkable time-to-market gains and cost reductions as a result. In 1997, we at the Software Engineering Institute (SEI) launched a Product Line Practice Initiative to help develop, mature, and transition the important knowledge and expertise to help more organizations enjoy the benefits of product lines. Our vision is that product line development is a low-risk, high-return proposition for the entire software engineering community.

It was always one of our goals to help build a community of practitioners and researchers interested in learning about and applying the ideas behind software product lines. The Software Product Line conferences have been the realization of that goal. They have marked a growing and widespread interest in software product lines. More and more companies are launching product line efforts. Books on the topic are easy to find, and product lines and product families now appear in the topic list of many conferences besides the SPLC series. Due in no small part to this community of interest, the field is rapidly maturing, moving away from ad hoc approaches and towards repeatable strategies and recognized best practices.

SPLC 2004 marks the most successful conference to date. In addition to the high-quality papers found in this volume, we had the richest set of tutorials, workshops, panels, and tool demonstrations ever. We were gratified by the submissions from all parts of the globe, from industrial, academic, and government organizations. From these submissions, we assembled a wide-ranging program. For the first time, we were able to create specially themed tracks of interest in business and economic issues, quality assurance, and product line architectures. The very existence of these subareas of interest and the fact that we received enough material about each to fill the tracks are additional indicators that the field is maturing.

I would like to take this opportunity to thank the authors of all submitted papers and the members of the program committee who donated their time and energy to the review process that resulted in the high-quality papers you are about to read. I offer my special appreciation to David Weiss and Rob van Ommering, the program cochairs, who created such a superb program. I thank Robert Nord, the tireless editor of these proceedings, Pennie Walters, who assisted in the editing process, and Pat Place, who helped with word-processing matters. We hope you find the results of SPLC 2004 beneficial and enjoyable, and we look forward to seeing you at the next Software Product Line conference.

August 2004   Paul C. Clements

Program Chairs' Welcome

Welcome to the Third International Software Product Line conference — SPLC 2004. This year's program reflects the diversity and intensity of work in software product lines. It represents a healthy balance among research in universities, research in industrial laboratories, and industrial applications. The program is organized into three themes: business, architecture, and quality assurance. It covers topics ranging from how to start a software product line in a company that has not previously created one, to case studies of mature product lines and the technology used to create and maintain them, to test strategies for product lines, to strategies and notations for creating product line architectures, to the importance of binding times in creating product lines.

Our workshops and tutorials this year embody the same themes as the technical program and the same diversity among presenters and participants. They provide opportunities for learning and sharing by practitioners and researchers.

We also continue the tradition of concluding the conference with the Product Line Hall of Fame. Attendees are invited to come to this lively and fun session, propose an architecture for the Hall of Fame, and be prepared to defend their choices and cast their votes for architectures that deserve to be famous.

As with most conferences, the focus and quality of SPLC 2004 depends strongly on the work of the program committee members, who have the opportunity to help the field progress in needed directions and to showcase recent progress. They are the thought leaders who determine which ideas the attendees hear about in the technical presentations. We thank our program committee for the excellent job they have done in setting the direction for SPLC 2004 and the work that they have done to make this conference a success.

August 2004   David Weiss and Rob van Ommering

Organizing Committee

Program Committee